

CLIVINA, Lat.

1. *C. grandis*, Dej. ii. 478.

Nigra; thorace quadrato; elytris elongatis, parallelis, punctato-striatis, punctis quatuor impressis, margine tenui, macula postica, antennis pedibusque rufis.

Long. $5\frac{1}{4}$ lin., lat. $1\frac{1}{2}$ lin.

[To be continued.]

XXXV.—*Descriptions of two new species of Heteropodous Mollusca*. By ARTHUR ADAMS, Surgeon R.N.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,

South Atlantic, off Cape Frio.

Since writing my last note on the Equator, two species of *Sinusigera* of D'Orbigny, or *Cheletropis* of Forbes, have occurred to us among the contents of the towing-net, and both different from *S. Huxleyi*, Forbes. One is of a dark reddish-brown colour, with an elevated spire, and keeled on the last whorl; the other is of a delicate pink or flesh-colour, and is much more globose; both species are finely reticulated. The dark species I presume to be that originally described by D'Orbigny, *S. cancellata*; the other species I have dedicated to that eminent naturalist and accurate observer. The animal, so well figured and described by Mr. Macdonald of the "Herald," is by no means shy, and appears to employ the cephalic arms for reptation, crawling head downwards somewhat in the manner of an *Octopus*; they also answer the purpose of tentacular arms for the capture and retention of the minute crustaceans on which they prey. The genus *Sinusigera* belongs to the family *Macgillivrayida*, established by my brother and myself in our 'Genera of Mollusca,' which appears, however, to differ sufficiently from the other Heteropods to stand by itself as an independent sub-order, which might be called *Brachiocephala*. The new species may be thus characterized:—

Sinusigera D'Orbignyi, A. Adams. Am

S. testa turbinata, subglobose; spira obtusa, carneola, vertice luteola, pulcherrime reticulata; anfractu ultimo ventricosus, ecarinato. Apertura semiovali; labro margine vix incrassato, lobis duobus instructo, lobo antico simplici et obtusim acuminato, postico canaliculato et ad apicem truncato.

Hab. in Oceano Atlantico Australi.

Shell turbinate, subglobose, with an obtuse spire, flesh-co-

loured, with the apical whorls yellowish; last whorl ventricose and ecarinate, the surface finely reticulated. Aperture semi-ovate; the outer lip slightly thickened and furnished with two lobes, the anterior one simple and obtusely pointed; the posterior folded in at the sides for the siphon, and truncate at the end.

Many of the genera of Pteropods, both those with shells and those with naked bodies, have been taken and recognized by me. The species of *Spirialis* also sometimes abound. The figures both of D'Orbigny and of Eydoux and Souleyet are very good; others are bad, and fail to give any idea of these forms when living; but a ship, unfortunately, is a bad place either for drawings or for peaceful study.

Rio de Janeiro, 4th Feb. 1857.

Since my last brief communication I have been fortunate enough to detect a second new species of *Macgillivrayia* from the Atlantic Ocean, which differs from my *M. echinata* in the absence of spines round the last whorl, and in the colour, form, and simple aperture, which is not armed at the fore part; from the other species of the genus it may be readily known by the upper whorls being crowned with setæ. It may be thus characterized:

Macgillivrayia setigera, A. Adams.

M. testa subglobosa, cornea, semiopaca; anfractibus quatuor, ultimo amplo, lævi, inermi, penultimo in medio angulato, serie setarum coronato et longitudinaliter delicatim costulato; nucleo subviolaceo. Apertura ovali, antice simplici, rotundato.

Hab. in Oceano Atlantico Australi.

Shell subglobose, horny, semiopaque; whorls four, the last large, smooth; the penultimate angulated in the middle, and furnished with a series of bristles directed nearly upwards, very finely longitudinally costellated; the nucleus violaceous. Aperture wide, simple anteriorly.

Numerous interesting forms of pelagian Crustacea have been captured during our delightful passage from Madeira to Rio, among which was a specimen of the *Rhabdosoma armatum* of Adams and White, two species of *Oxycephalus* of Milne-Edwards, *Squillerichthys*, *Oplophorus*, *Megalopa*, *Zoëa*, and many others.

The *Glaucus* was taken in some numbers; it has the means of distending its body with vesicles of air disposed along the front part of the back, to enable it to float the better. When becoming languid, it protrudes a long, pale, dilated proboscis:

the gills are easily shed. The *Triptera columella*, when first taken, swims vigorously about, and protrudes a proboscis which curves downwards, which it frequently rapidly retracts into the interior of the body and as rapidly exserts again. The greater majority of small oceanic Crustaceans, like a large number of other animals which inhabit the high seas, are of a deep blue colour, which, however, changes to a bright red when the animals are placed in spirit.

I remain, Gentlemen,
Your obedient Servant,
ARTHUR ADAMS.

XXXVI.—*Notes on the Permian System of the Counties of Durham and Northumberland.* By RICHARD HOWSE, South Shields.

[Concluded from p. 312.]

GASTEROPODA.

33. CHITON LOFTUSIANUS, King.—The general form of this Chiton, and the size it attained, are at present unknown, for the plates have never been found articulated together. It may, perhaps, be inferred, from the size of the plates that have occurred, that it was rather a small species than otherwise.

The marginal outline of the first and last plates is semicircular, that of the second unguiform. The third plate, supposed by the author of the 'Perm. Mon.' to be the second, is somewhat triangular; the fourth is slightly furcated; and the other three, assuming it had eight altogether, are oblong or strap-shaped in marginal outline. The second, third and fourth plates are broad and very oblique; the fifth, sixth and seventh, narrow and transverse. The posterior plate, which is not 'capuliform,' but half-limpet-shaped, has its apex or mucro produced to a fine point. Seen in profile, all the plates, excepting the first or head-plate, are curved towards the posterior margin, considerably elevated along the dorsal line, and pressed down steeply on each side towards the lateral margin. The lateral areas of the intermediate valves, excepting the second, are large and distinctly defined. Occasionally a small sulcation or furrow may be seen on each side of the dorsal ridge, but this seems to be rather an accidental than a specific character. The entire surface of all the plates is minutely granulated or shagreened, and the striæ of growth are very distinct on the dorsal as well as on the lateral areas. The interior of the valves is minutely pitted or granulated. The apophyses or processes of attach-